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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,369	07/18/2003	Jang Geun Oh	HI-0159	4055

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EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/621,369

Applicant(s)

OH, JANG GEUN

Examiner

Stephen G. Sherman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28,30-41 and 47-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28,30-41 and 47-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed the 8 January 2007. Claims 28, 30-41 and 47-50 are pending. Claims 1-27, 29 and 42-46 have been cancelled.

Response to Arguments

2. Applicant's arguments filed 24 April 2006 with respect to claims 28, 30-41 and 47-50 have been fully considered but they are not persuasive.

Starting on page 8 of the applicant's remarks, the applicant argues that independent claims 28 and 36, as amended, are not taught by Mendelson et al. as applied by the examiner in the previous rejection, however, based upon the new rejection below using Mendelson et al. the examiner believes that Mendelson et al. do teach the claimed limitations.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 28, 30-41 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Mendelson et al. (US 6,559,826).

Regarding claim 28, Mendelson et al. disclose a method of setting brightness control codes for a display (), comprising:

driving the display (Figure 11, steps 1115-1130 explain that the display is made to display images at various brightness levels on the LCD, and in order to display images on the screen the display must be driven.);

sensing a brightness of the display (Figure 11, steps 1115-1130 explain that the luminance outputs are measured using the sensor.);

adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness(Figure 11 shows steps 1115-1130, where the display is driven at a known voltage level, say for example V. The gamma sensor then senses the brightness, and for example the brightness may be X. In step 1135 the sensed values are used in comparison to known values and previously set values as described in column 15, lines 53-67. In calculation, it would be known that when the display is driven at voltage V that the display brightness should actually have been $X+\Delta X$. By knowing what the brightness should have been, and using measurements at other voltage levels and comparing between known values of the display, the voltages at which the different lamps can be updated in order to account for the discrepancy

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caused by lamp degradation can be determined. Thus, a lamp that was initially driven at voltage V can now be driven at a voltage $V+\Delta V$. Thus the driving is adjusted such that the brightness of the display will be based on the sensed brightness.); and

setting an adjusted brightness control code corresponding to the predetermined brightness of the display (Figure 11 shows step 1145 where the updated profile is stored into memory, which means that the brightness control code is "set" in memory.),

wherein the driving includes initially driving the display using a brightness control code provided by a display manufacturer, and wherein setting the adjusted brightness control code includes setting a new brightness control code corresponding to the predetermined brightness, the new brightness control code replacing the brightness control code provided by the display manufacturer (Column 12, lines 12-22 explain that Figure 9 is the procedure used to set the control codes at the factory. Column 15, lines 6-12 explain that the procedure used in Figure 11 is what is used after manufacture. Column 16, lines 7-16 explain that at the end of the procedure of Figure 11 the codes stored replace the previously stored profile, meaning that they will replace the one that is stored in the procedure of Figure 9. Also since the display has been used without calibration between the processes of Figures 9 and 11, driving of the display between these points in time would consist of using control codes set at display manufacture, therefore driving would include initially driving at a level according to the level set at manufacture.).

Regarding claim 30, Mendelson et al. disclose the method according to claim 28, wherein the driving, sensing adjusting and setting are preformed a plurality of times to set a plurality of different brightness control codes corresponding to a plurality of different predetermined brightness levels (Figure 11, steps 1115, 1120, 1125 and 1130 all state levels which refers to a plurality, meaning that the process as described is repeated numerous times.).

Regarding claim 31, Mendelson et al. disclose the method according to claim 30, further comprising storing the plurality of brightness control codes in a memory of the display (Figure 11, step 1145).

Regarding claim 32, Mendelson et al. disclose the method according to claim 30, further comprising storing the plurality of brightness control codes in at least one of a system BIOS, an operating system and a microcontroller of a computer system (Column 9, lines 43-47 and column 4, lines 59-67 and Figure 1, items 12 and 19. The examiner interprets that since the codes are sent to the computer system and that the computer system has an operating system and processors 12 and 19 that the codes are output to at least one of these items in the computer system.)

Regarding claim 33, Mendelson et al. disclose the method according to claim 30, wherein the setting comprises setting brightness control codes that indicate how to control an inverter that supplies power to the display (Column 9, lines 28-42 and column

10, lines 56-67 explain that in setting the updated profiles, the voltage settings for the lamps will be changed, so that the setting would comprise of updating these voltages.).

Regarding claim 34, Mendelson et al. disclose the method according to claim 30, wherein the setting includes setting high temperature brightness control codes that provide information about how to control the brightness of the display when the display is operated at high temperature (Column 10, lines 56-67).

Regarding claim 35, Mendelson et al. disclose the method according to claim 28, wherein the adjusting comprises changing a signal applied to an inverter that supplies power to the display to adjust a brightness of the display (Column 9, lines 28-42 and column 10, lines 56-67 explain that in setting the updated profiles, the voltage settings for the lamps will be changed, so that the setting would comprise of adjusting these voltages.).

Regarding claim 36, please refer to the rejections of claim 28 and 30, and furthermore, Mendelson et al. also disclose of using one of the brightness control codes corresponding to a desired brightness level to drive the display at the desired brightness level (Column 10, lines 56-67. The examiner interprets that after the codes are set that the display would be driven using one of the brightness control codes stored.).

Regarding claim 37, this claim is rejected under the same rationale as claims 33 and 35.

Regarding claim 38, Mendelson et al. disclose the method according to claim 36, wherein the brightness control codes are set after the display is driven at the predetermined brightness level (Figure 11. The examiner interprets that the codes are set in steps 1140-1145 after the display is driven in steps 1110-1130.).

Regarding claim 39, Mendelson et al. disclose the method according to claim 36, wherein the plurality of different brightness control codes are provided in an EDID format (Column 9, line 66 to column 10, line 13).

Regarding claim 40, Mendelson et al. disclose the method according to claim 28, wherein new brightness control code is provided in an EDID format (Column 9, line 66 to column 10, line 13).

Regarding claim 41, this claim is rejected under the same rationale as claim 38.

Regarding claim 50, Mendelson et al. disclose the method according to claim 28, further comprising driving the display using the new brightness control code such that the display is driven at the predetermined brightness (Column 16, lines 7-16 explain that the codes are replaced after the measuring and setting stages are done. This

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means that the new codes that are stored will be used in the driving of the display every time the display is used until the procedure of updating the values take place again.

This means that the display will be driven using the new brightness control codes in order to obtain the brightness desired by the display.).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mendelson et al. (US 6,559,826) in view of Ichise (US 5,786,801).

Regarding claims 47-49, Mendelson et al. disclose the methods according to claims 28 and 36.

Mendelson et al. fail to explicitly teach wherein setting the new/adjusted brightness control codes includes increasing or decreasing by 1 the brightness control code provided by the display manufacturer (previous control code).

Ichise discloses of a controller which outputs brightness control codes by increasing or decreasing at least one previous control code by 1 (Figure 3 and column 5, lines 17 to column 6, line 6 explain that the controller changes the brightness of the display by attenuating the brightness based on the measurement data. An example is given in column 5, lines 53-56 that if the difference value obtained is 30, the brightness is attenuated by 30%. Then in column 5, line 64 to column 6, line 1 it explains that the values are changed when the difference value is between 0 and 30. This means that if the difference value is 1, then the brightness will be attenuated by 1%, i.e. if the detected brightness is 79 and the reference value is 78, then the brightness will be decrease by 1 so that the brightness matches 78.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to increase or decrease brightness control codes as taught by Ichise with the apparatus taught by Mendelson et al. in order to limit said brightness to a predetermined brightness level when the current brightness is higher than the predetermined value and to increase brightness when the current brightness is lower than a predetermined value.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS

13 February 2007

AMR A. AWAD
SUPERVISORY PATENT EXAMINER
